

- FIG. 23. *Teracolus achine* ♀, March 11, 1899. In this and the two preceding figures the unilateral injury suggests an attack on the wing.
24. *Pyrameis cardui* ♂, Dec. 31, 1898.

EXPLANATION OF PLATE XII.

SEASONAL PHASES OF BUTTERFLIES OF THE GENUS *PRECIS*.

Representation of parent and offspring in *Precis sesamus* and *P. antilope*.

Demonstration of the seasonal phases of South African Butterflies of the genus *Precis*.

All the figures are about $\frac{9}{10}$ of the natural size.

All the specimens represented were captured or bred by Guy A. K. Marshall.

FIG. 1. *Precis sesamus*, form *natalensis* ♀, Salisbury, 5000 feet, captured Feb. 27, 1898, after it had laid three eggs. Parent of butterflies represented in Figs. 1a and 1b.

1a. *Precis sesamus* ♂, offspring No. 1 of butterfly represented in Fig. 1. Egg laid Feb. 27, hatched March 5, larva pupated March 31, imago emerged April 15.

1b. *Precis sesamus*, form *natalensis* ♀, offspring No. 2 of butterfly represented in Fig. 1. Egg laid Feb. 27, hatched March 5, larva pupated April 5, imago emerged April 20. A distinctly dark individual showing some slight tendency towards *sesamus*, especially in the width of the black margin of the hind-wings and the size of the blue spots in this margin.

These two offspring show the overlap of summer and winter phases remarkably well. The summer form, Fig. 1b, even appeared a few days later in the beginning of winter than the winter form, Fig. 1a. At the same time the former is unusually dark.

2. *Precis sesamus*, form *natalensis* ♀, Salisbury, 5000 feet, captured March 6, 1898, after it had laid one egg. Parent of butterfly represented in Fig. 2a.

2a. *Precis sesamus* ♂, offspring of butterfly represented in Fig. 2. Egg laid March 6, hatched March 12, larva pupated April 7, imago emerged April 30. The last part of larval

life and the first part of pupal were passed in a damp jar (March 30 to April 5). The imago is nevertheless a characteristic example of the dry phase.

- FIG. 3. *Precis antilope* ♀, form *simia*, Salisbury, 5000 feet, captured Feb. 23, 1902, after it had laid eleven eggs. Parent of butterflies represented in Figs 3*a* and 3*b*. The under-side is shown on Plate XIII, fig. 4.
- 3*a*. *Precis antilope* ♀, offspring No. 1 of butterfly represented in Fig. 3. Egg laid Feb. 23, hatched March 1, larva pupated April 10, imago emerged April 27. The under-side is shown on Plate XIII, fig. 4*a*.
- 3*b*. *Precis antilope* ♂, offspring No. 2 of butterfly represented in Fig. 3. Egg laid Feb. 23, hatched March 1, larva pupated April 14, imago emerged April 29. The under-side is shown on Plate XIII, fig. 4*b*.
4. *Precis archesia* ♀, captured Oct. 7, 1897, at Malvern, 800 feet, near Durban, Natal. This insect was *in coitu* with the form represented in Fig. 5.
5. *Precis archesia* ♂, a form varying somewhat distinctly in the direction of the wet phase (*pelasgis*), captured *in coitu* with the insect represented in Fig. 4. The tendency towards *pelasgis* is better shown upon the under-side, Plate XIII, fig. 8.

EXPLANATION OF PLATE XIII.

SEASONAL PHASES OF BUTTERFLIES OF THE GENUS *PRECIS*.

Under-sides of seasonal phases of *Precis sesamus*, *P. antilope*, and *P. archesia*, including those of *P. antilope* and its two offspring shown on Plate XII.

All the figures are about $\frac{2}{15}$ of the natural size.

All the specimens not otherwise described were captured by Guy A. K. Marshall.

- FIG. 1. *Precis sesamus*, form *natalensis* ♀, under-side of wings; Salisbury, 5000 feet, captured Feb. 20, 1898. Comparing this with Figs. 1, 1*b*, and 2 on Plate XII, it is seen that the under-side, although very similar to the upper, is even more conspicuous than it. The difference is brought about by the pale spots on the black basal patch of the